

CLAIMS

What is claimed is:

1. A method for treating psoriasis in an individual, comprising administering a composition comprising an antigen that shares immunological characteristics of an antigen that is aberrantly expressed in human psoriatic tissue, wherein an immunological response specific for the aberrantly expressed antigen is elicited in the individual.
2. The method of claim 1, wherein the individual is a human.
3. The method of claim 1, wherein the antigen administered is a ganglioside, and the immune response is an anti-ganglioside immune response.
4. The method of claim 3, wherein the ganglioside that is administered is selected from the group consisting of GM2, GM3, GD1b, GD2, 9-O-acetyl GD2, GD3, GD3 lactone, 9-O-acetyl GD3, and GT3.
5. The method of claim 3, wherein the ganglioside that is administered is GD2 or 9-O-acetyl GD2.
6. The method of claim 1, wherein the antigen administered is an anti-idiotypic moiety for a ganglioside.
7. The method of claim 6, wherein the anti-idiotypic moiety is 1A7, 4B5, or BEC-2.
8. A method for preparing a composition for use in the treatment of psoriasis, comprising:
raising an anti-idiotypic antibody against a monoclonal antibody that binds an antigenic determinant that is aberrantly expressed in psoriatic tissue, wherein the anti-idiotypic

antibody is capable of eliciting an immunological response in a human against the antigenic determinant.

9. The method of claim 8, wherein the antigenic determinant is identified using the monoclonal antibody against which the anti-idiotypic is raised.
10. A method of screening an immunogenic composition for use in the treatment of psoriasis in humans, comprising the steps of:
 - a) administering to a plurality of human subjects having psoriasis an immunogenic composition comprising an immunogenic form of:
 - i) an antigenic determinant that is aberrantly expressed in psoriatic tissue;
 - ii) a monoclonal anti-idiotypic antibody for an antigenic determinant that is aberrantly expressed in psoriatic tissue; or
 - iii) an expression vector encoding either i) or ii); and
 - b) correlating the progression of the psoriasis in the human subjects treated in step a) in relation to that in untreated human subjects having psoriasis, with the effectiveness of the immunogenic composition.
11. A method of screening an immunogenic composition for use in the treatment of psoriasis in humans, comprising the steps of:
 - a) administering to a plurality of human subjects having psoriasis an immunogenic composition, comprising an immunogenic form of:
 - i) an antigenic determinant that is aberrantly expressed in psoriatic tissue;
 - ii) a monoclonal anti-idiotypic antibody for an antigenic determinant that is aberrantly expressed in psoriatic tissue; or
 - iii) an expression vector encoding either i) or ii); and
 - b) determining the extent of an immunological response against the antigenic determinant in each subject treated in step a); and

- c) correlating the progression of the psoriasis in relation to the extent of the immunological response against the antigenic determinant in each subject with the effectiveness of the immunogenic composition.
12. The screening method according to claim 10, wherein the antigen that is aberrantly expressed in psoriatic tissue is a ganglioside.
13. The screening method according to claim 11, wherein the antigen that is aberrantly expressed in psoriatic tissue is a ganglioside.
14. A kit comprising
- a) a composition packaged in a container and comprising an immunogenic form of a component selected from the group consisting of:
 - i) a ganglioside;
 - ii) an anti-idiotypic for a ganglioside; and
 - iii) an expression vector encoding an anti-idiotypic for a ganglioside; and
 - b) written instructions for using the composition in the treatment of psoriasis.
15. The use of a component selected from the group consisting of:
- i) a ganglioside;
 - ii) an anti-idiotypic for a ganglioside; and
 - iii) an expression vector encoding an anti-idiotypic for a ganglioside;
- in the manufacture of a medicament for the treatment of psoriasis.
16. The use according to claim 15, wherein the psoriasis is classified within the group consisting of guttate psoriasis, pustular psoriasis, plaque-type psoriasis, and psoriatic arthritis.
17. The use according to claim 15, wherein the psoriasis is chronic plaque psoriasis.

18. The use according to claim 15, wherein the component is a ganglioside selected from the group consisting of GM2, GM3, GD1b, GD2, 9-O-acetyl GD2, GD3, GD3 lactone, 9-O-acetyl GD3, and GT3.
19. The use according to claim 15, wherein the component is an anti-idiotypic selected from the group consisting of 1A7, 4B5, and BEC-2.
20. A topical formulation comprising 1A7.